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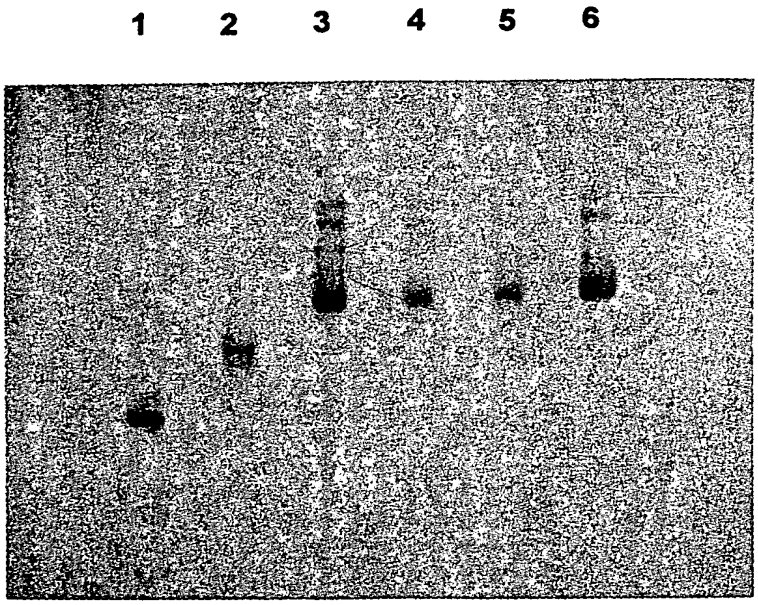


FIG. 1

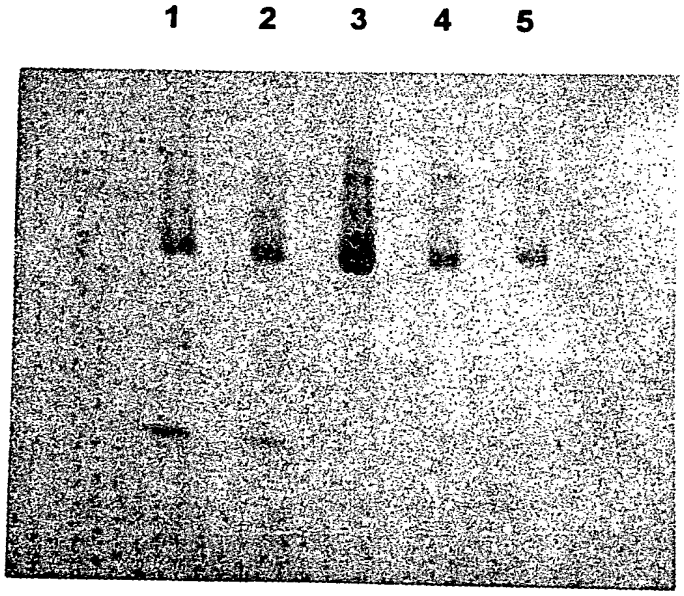


FIG. 2

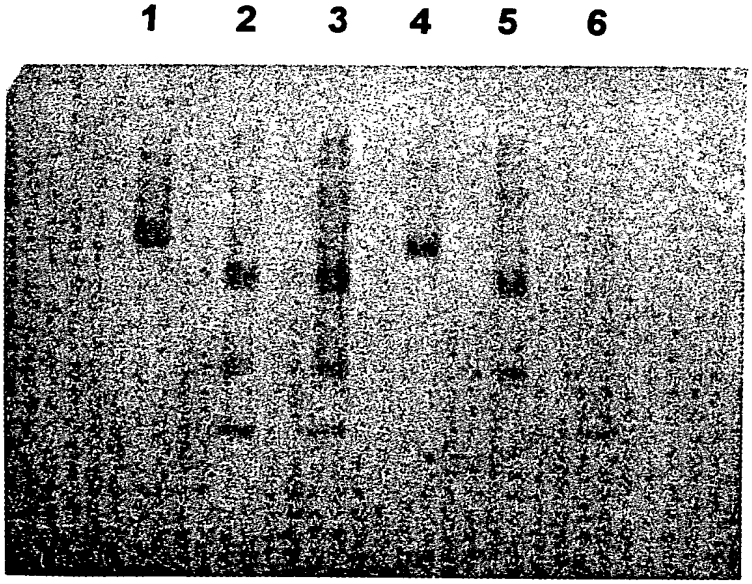


FIG. 3

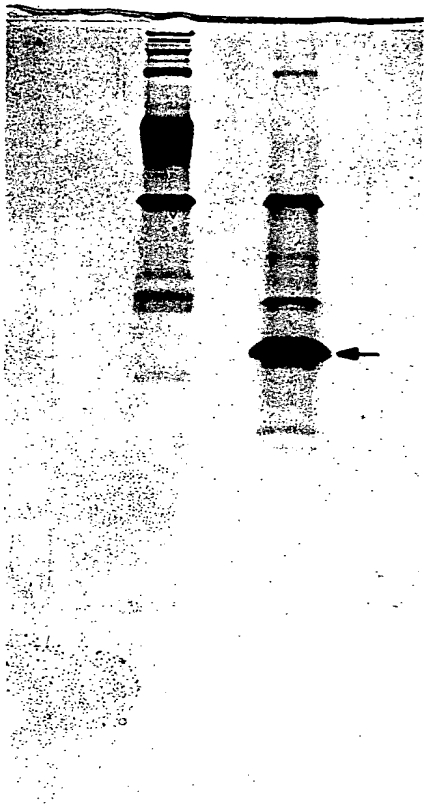


FIG. 4

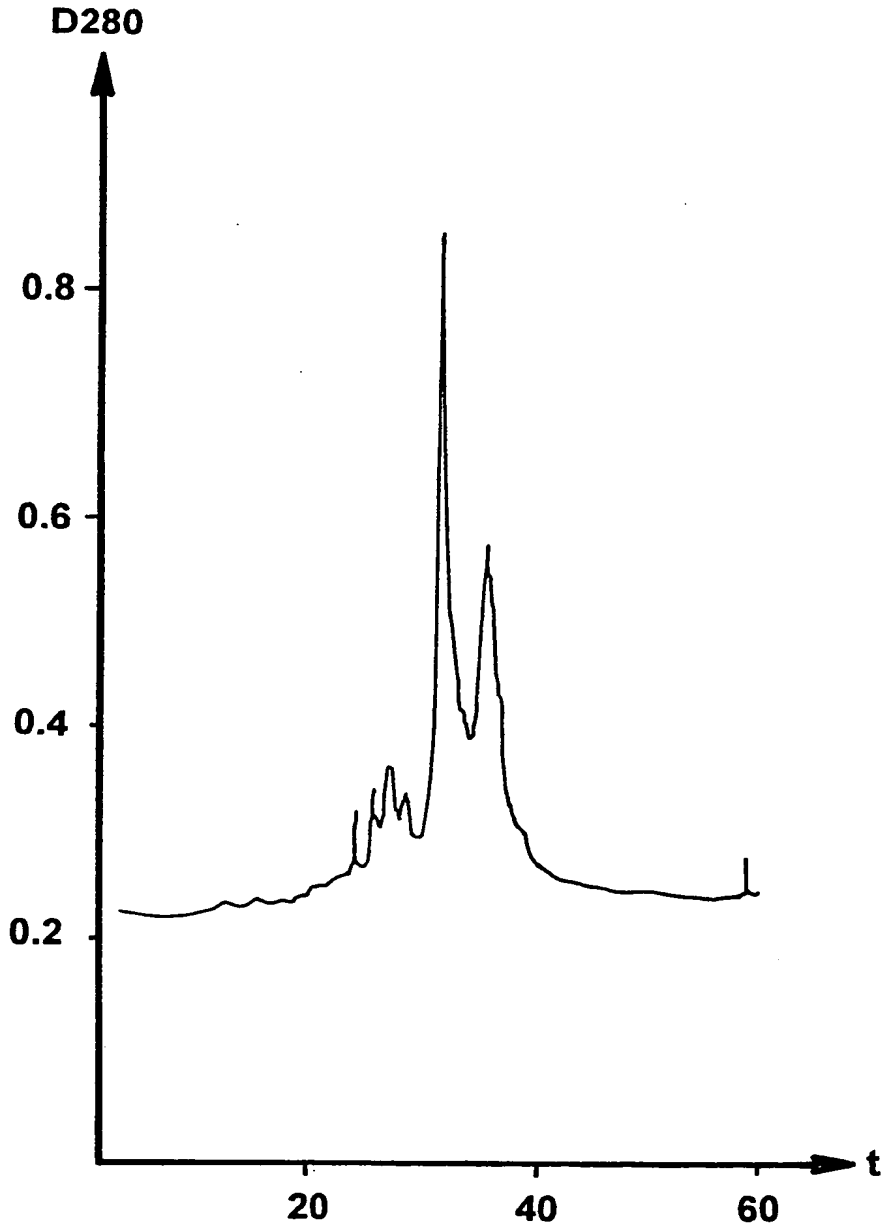


FIG. 5

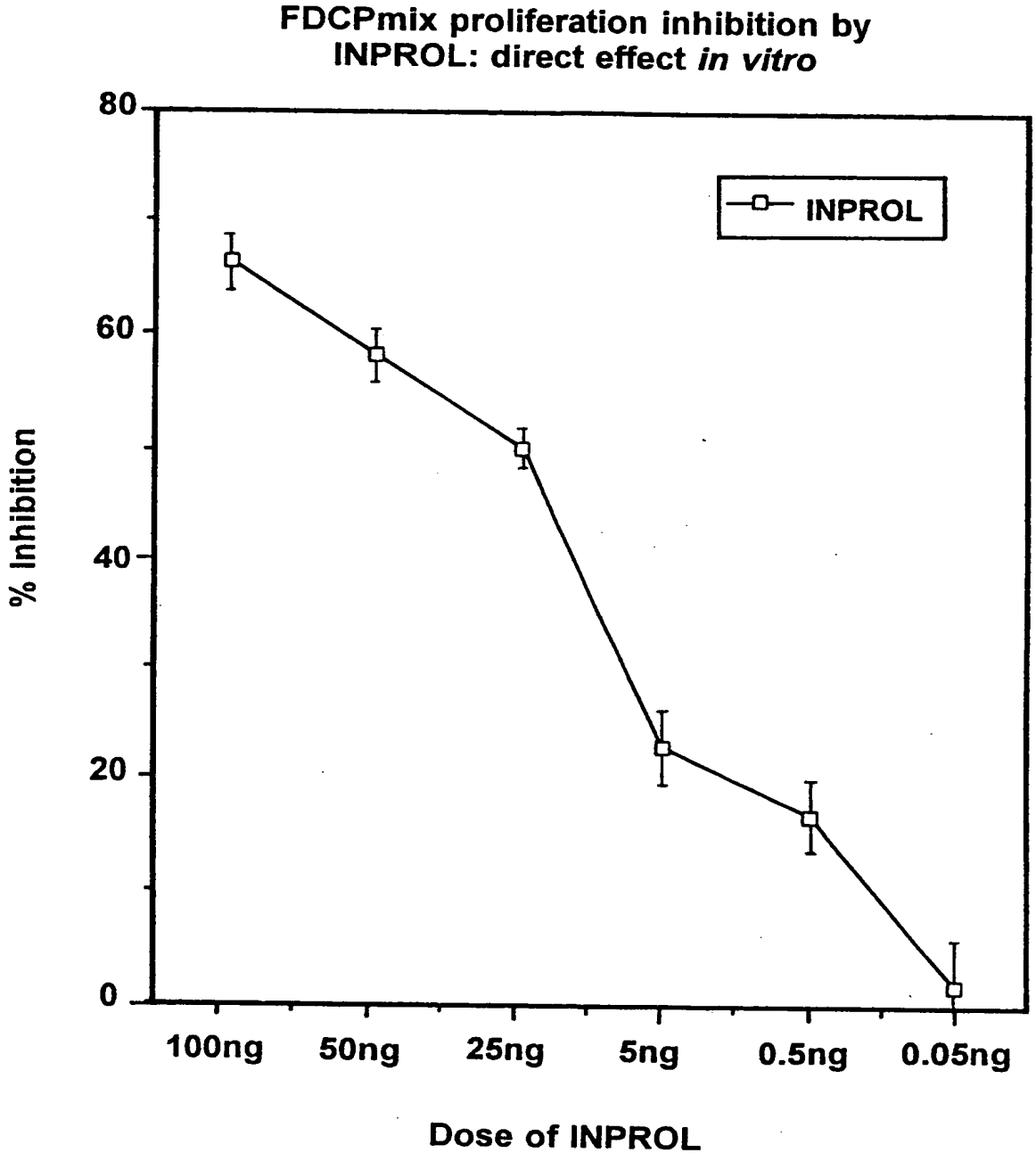


FIG. 6

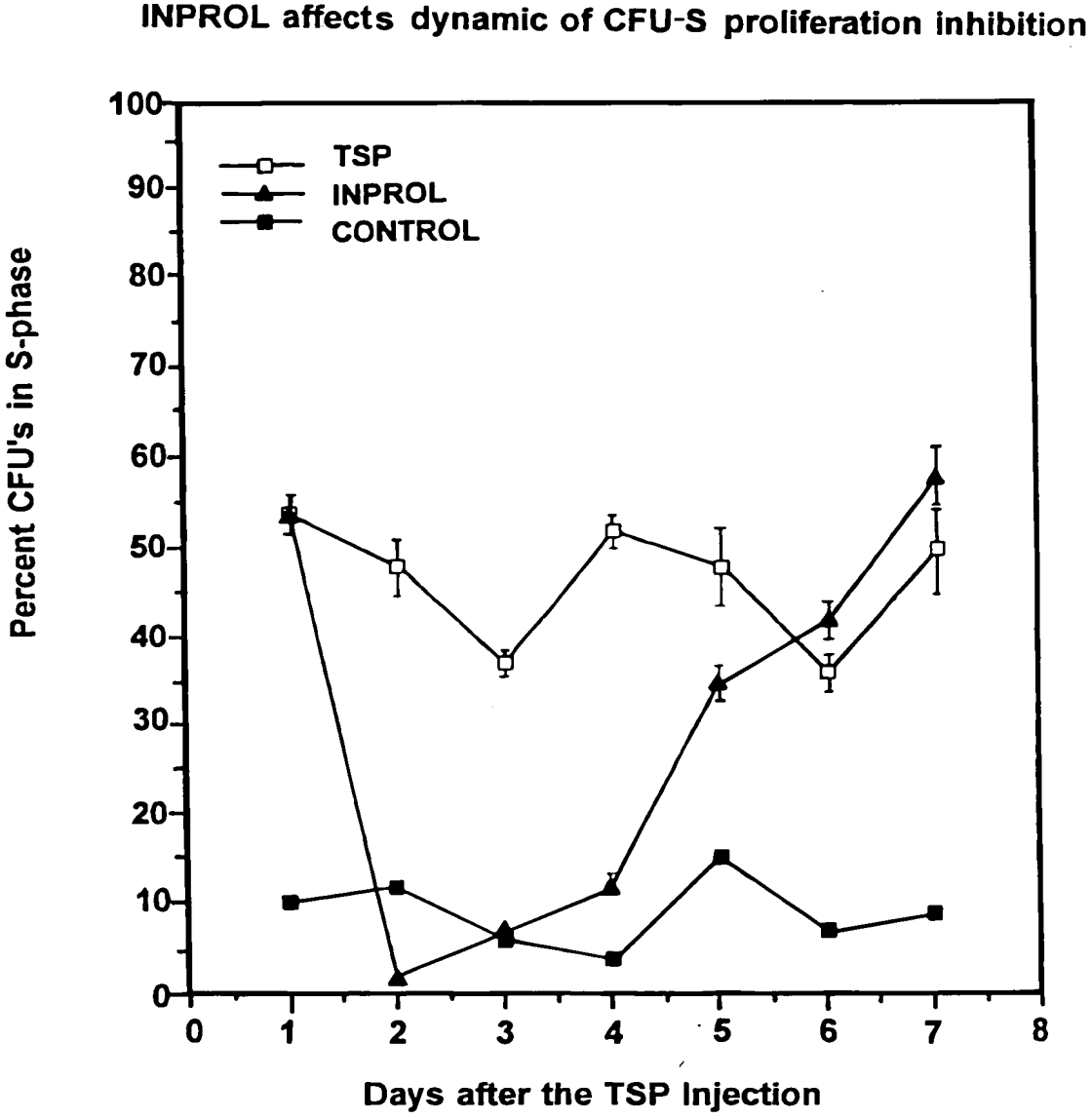
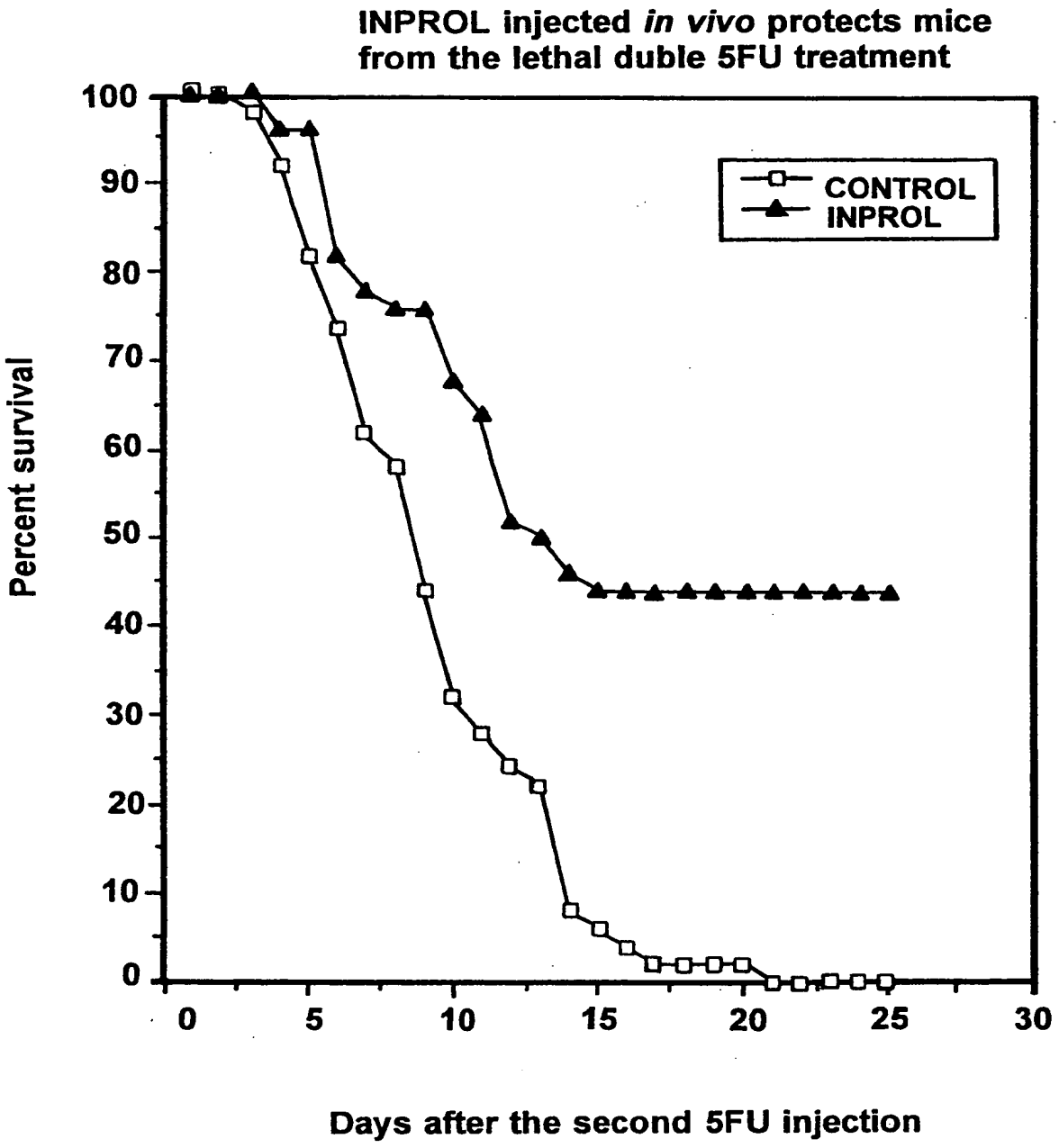


FIG. 7

FIG. 8



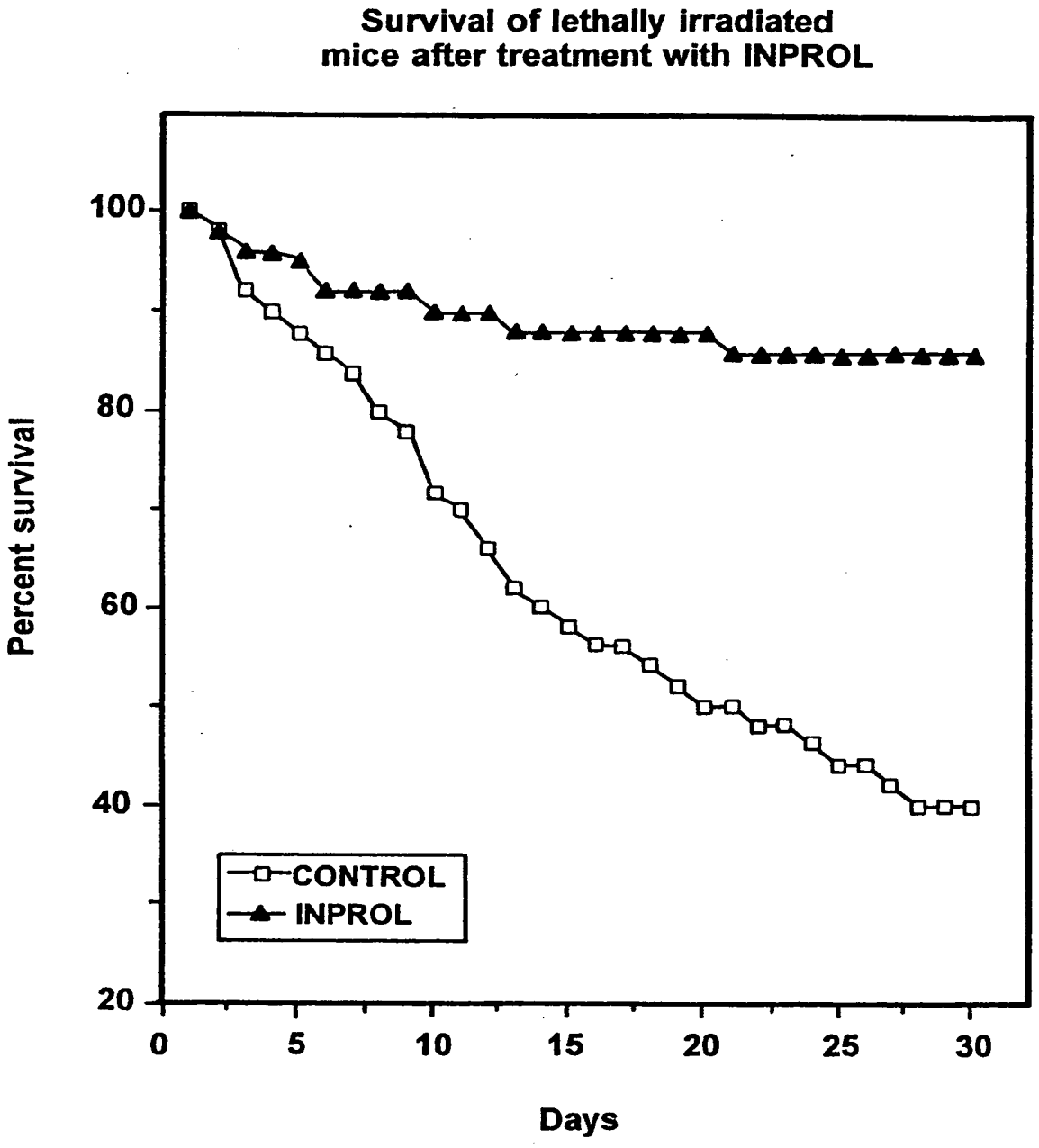


FIG. 9

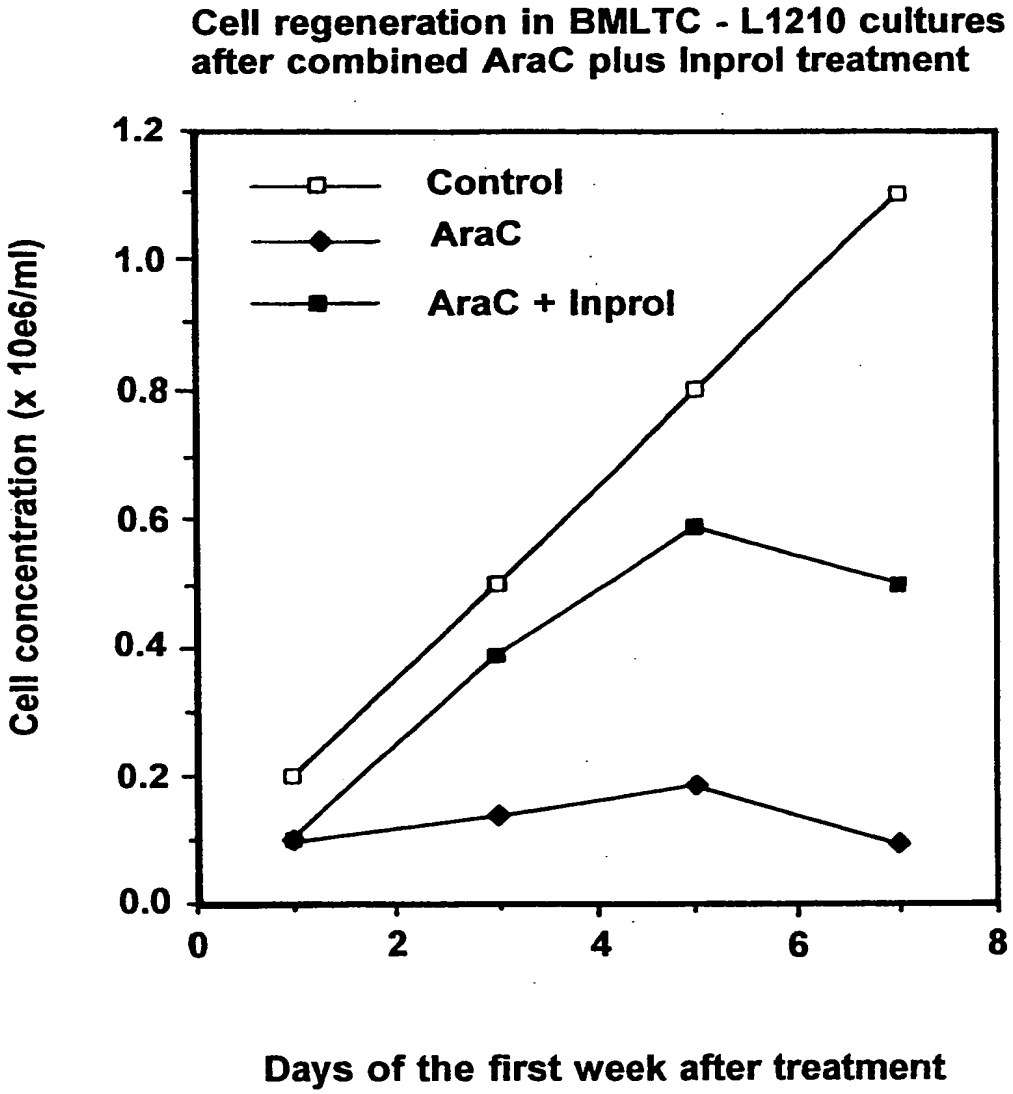


FIG. 10A

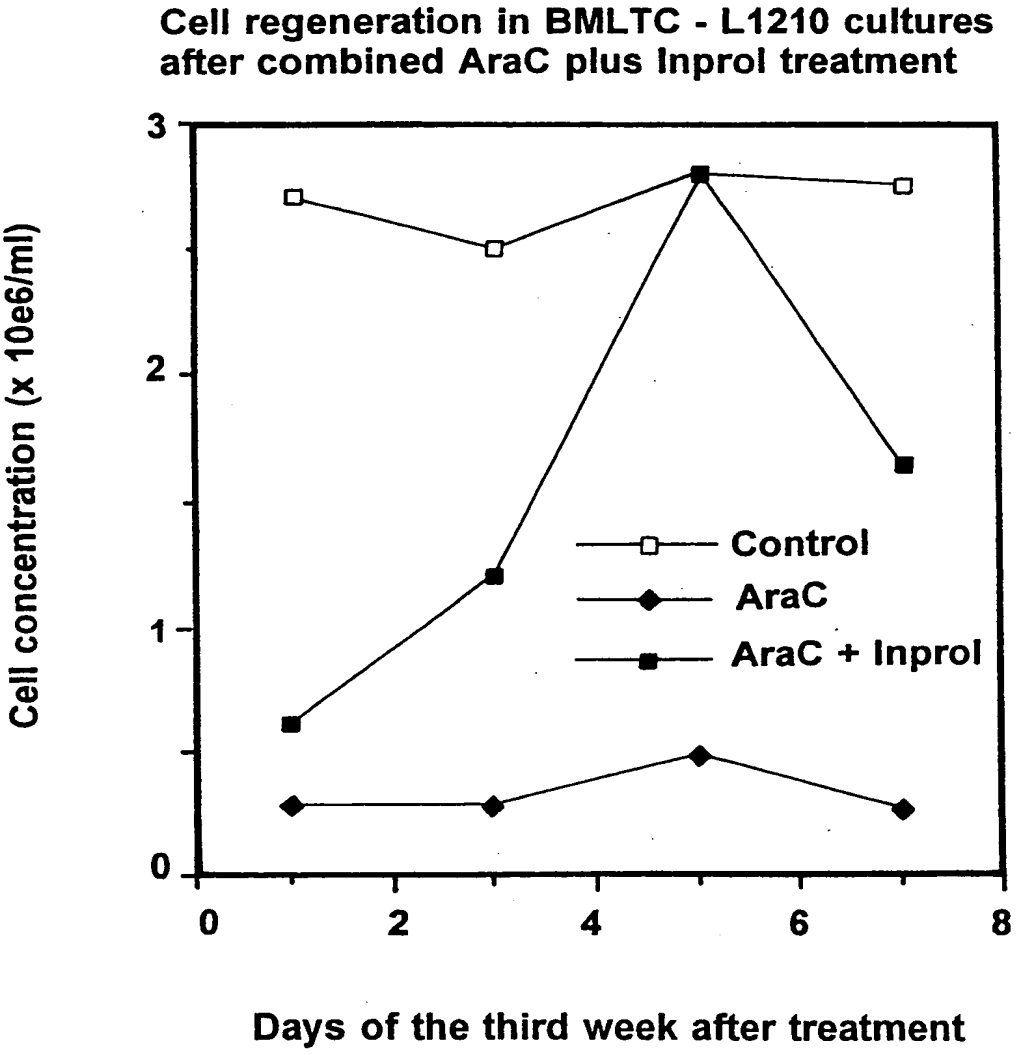


FIG. 10B

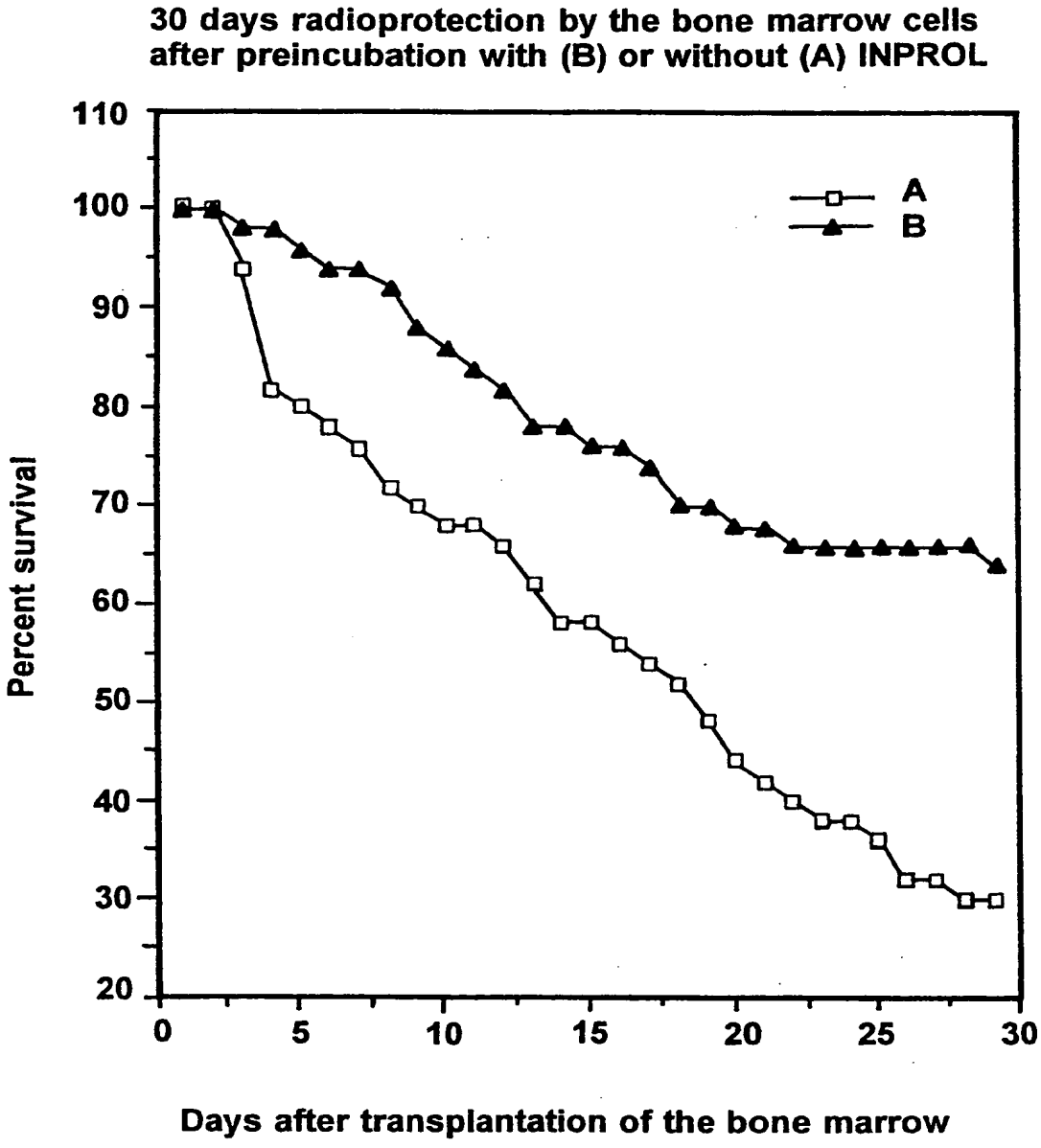


FIG. 11

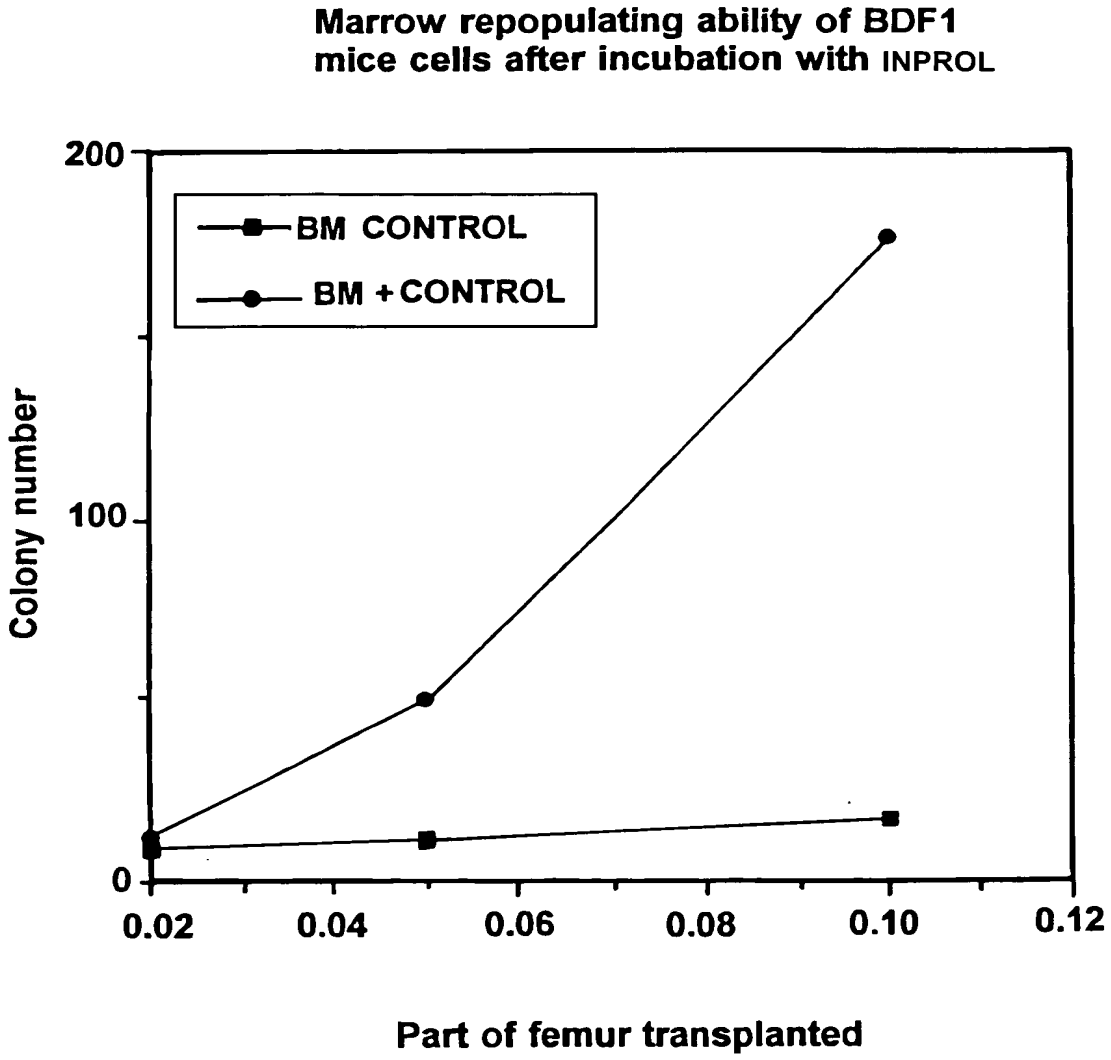


FIG. 12

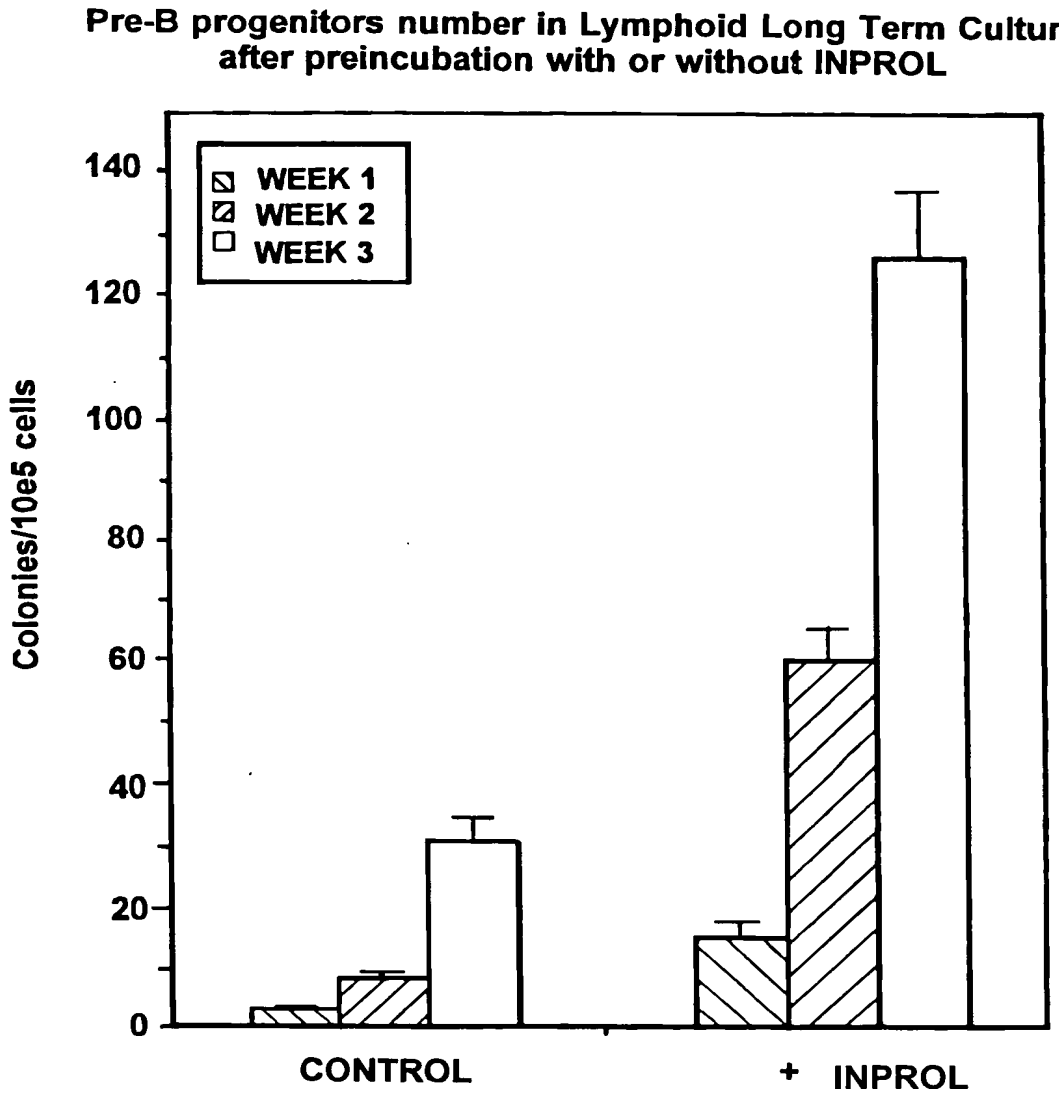


FIG. 13

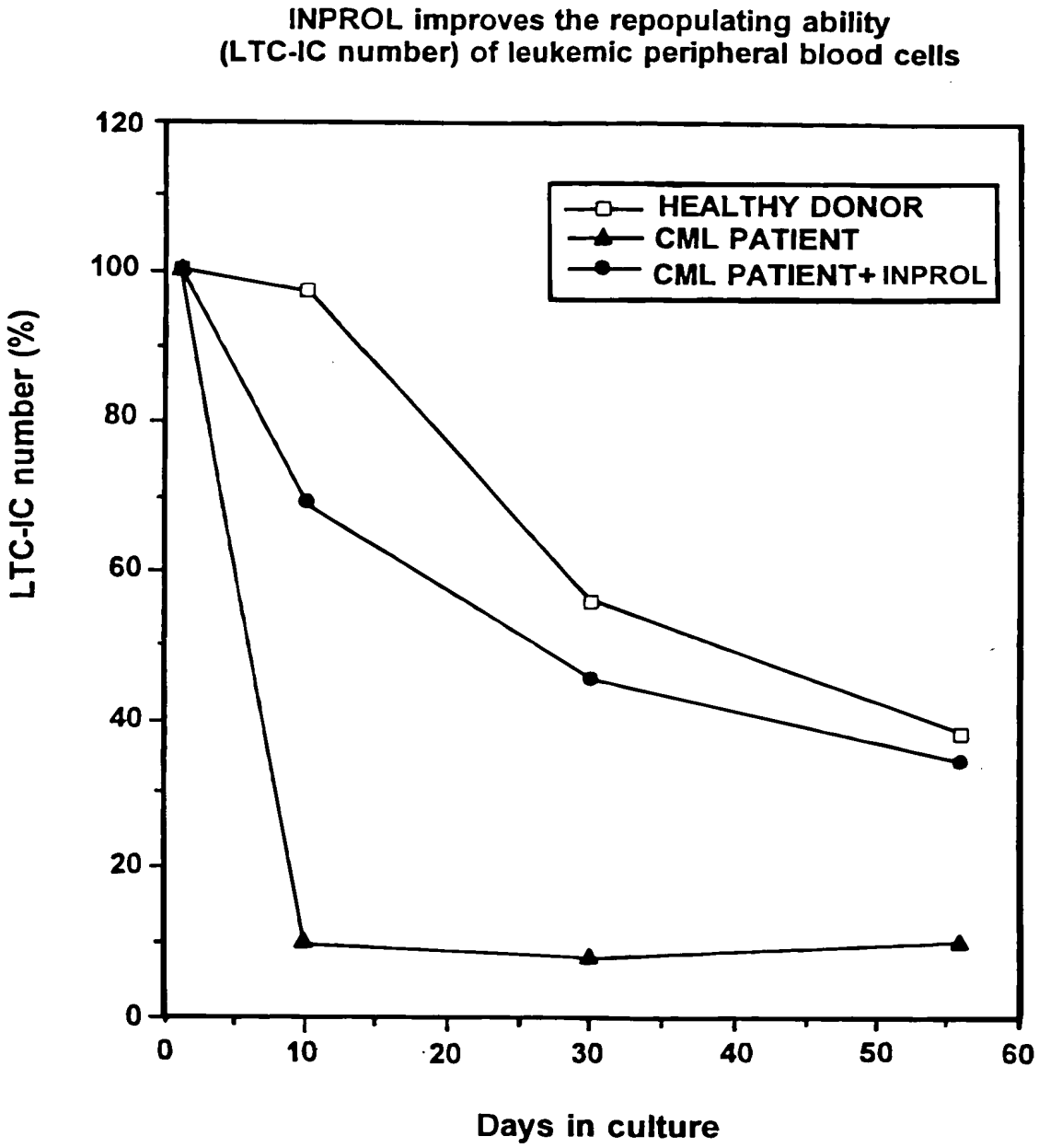
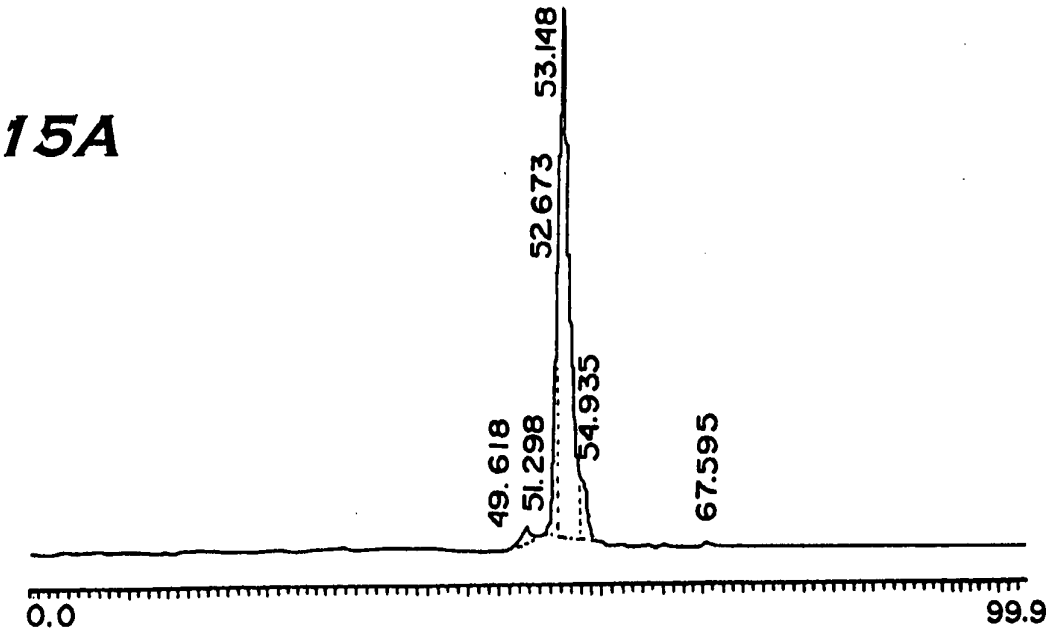


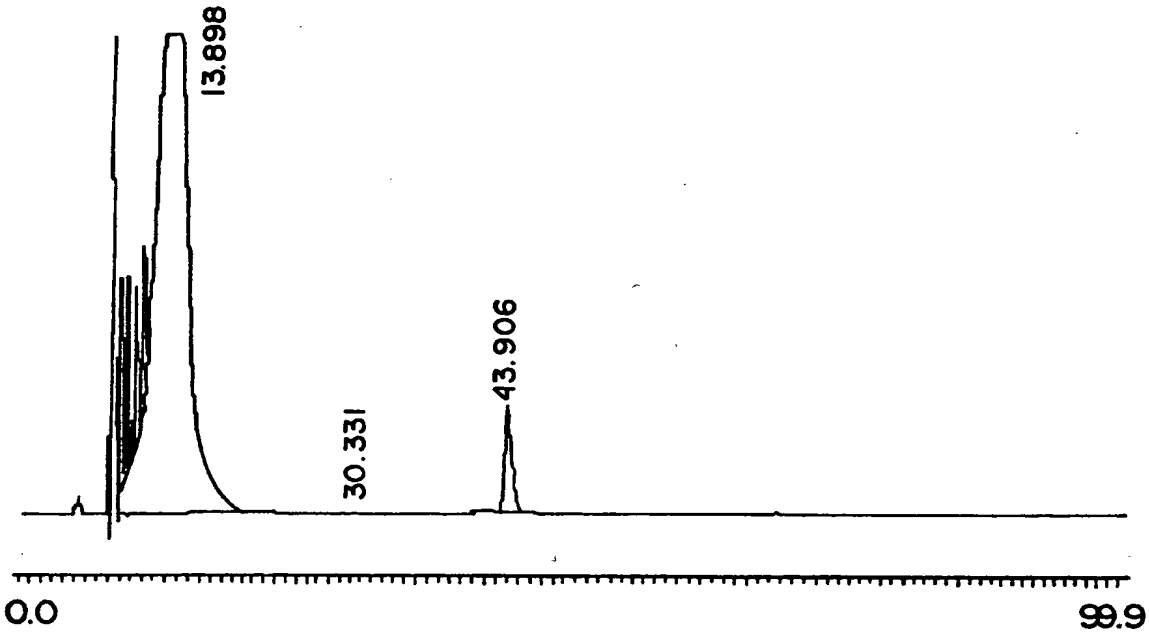
FIG. 14

FIG. 15A



Analysis: Channel A

Peak No.	Time	Type	Height(μY)	Area(μY-sec)	Area%
	3.126	N1	691	7578	0.041
	3.315	N2	1011	5150	0.027
1	49.618	N	8584	349227	1.893
2	51.298	N	1456	20274	0.109
3	52.673	N1	138069	2633395	14.278
4	53.148	N2	271587	14050458	76.181
5	54.935	N3	33016	1332820	7.226
6	67.595	N	3270	44507	0.241
TOTAL AREA				18443409	99.996



Analysis: Channel A

Peak No.	Time	Type	Height(μY)	Area(μY-sec)	Area%
1	4.383	N1	3945	95125	0.119
2	5.080	N2	28639	330889	0.413
3	5.216	N3	49084	531867	0.665
4	7.980	N1	399424	1110511	1.389
5	8.100	Err'	1203320	2882013	3.605
6	8.241	N3	443249	1506159	1.884
7	8.386	N4	481563	2185702	2.734
8	8.533	N5	412886	1826165	2.284
9	8.701	N6	321500	842122	1.053
10	8.745	N7	404661	1610380	2.014
11	8.995	N8	435765	2489721	3.114
12	9.316	N9	517790	4801831	6.007

FIG. 15B

FIG. 15C

FIG. 16A

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Val	Leu	Ser	Pro	Ala	Asp	Lys	Thr	Asn	Val	Lys	Ala	Ala	Trp	Gly	Lys	Val	Gly	Ala	His
GTG	CTG	TCT	CCT	GCC	GAC	AAG	ACC	AAC	GTC	AAG	GCC	GCC	TGG	GGT	AAG	GTC	GGC	GCG	CAC

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ala	Gly	Glu	Tyr	Gly	Ala	Glu	Ala	Leu	Glu	Arg	Met	Phe	Leu	Ser	Phe	Pro	Thr	Thr	Lys
GCT	GGC	GAG	TAT	GGT	GCG	GAG	GCC	CTG	GAG	AGg	ATG	TTC	CTG	TCC	TTC	CCC	ACC	ACC	AAG

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Thr	Tyr	Phe	Pro	His	Phe	Asp	Leu	Ser	His	Gly	Ser	Ala	Gln	Val	Lys	Gly	His	Gly	Lys
ACC	TAC	TTC	CCG	CAC	TTC	GAC	CTG	AGC	CAC	GGC	TCT	GCC	CAG	GTT	AAG	GGC	CAC	GGC	AAG

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Lys	Val	Ala	Asp	Ala	Leu	Thr	Asn	Ala	Val	Ala	His	Val	Asp	Asp	Met	Pro	Asn	Ala	Leu
AAG	GTG	GCC	GAC	GCG	CTG	ACC	AAC	GCC	GTG	GCG	CAC	GTG	GAC	GAC	ATG	CCC	AAC	GCG	CTG

81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Ser	Ala	Leu	Ser	Asp	Leu	His	Ala	His	Lys	Leu	Arg	Val	Asp	Pro	Val	Asn	Phe	Lys	Leu
TCC	GCC	CTG	AGC	GAC	CTG	CAC	GCG	CAC	AAG	CTT	CGG	GTG	GAC	CCG	GTC	AAC	TTC	AAG	CTC

101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Leu	Ser	His	Cys	Leu	Leu	Val	Thr	Leu	Ala	Ala	His	Leu	Pro	Ala	Glu	Phe	Thr	Pro	Ala
CTA	AGC	CAC	TGC	CTG	CTG	GTG	ACC	CTG	GCC	GCC	CAC	CTC	CCC	GCC	GAG	TTC	ACC	CCT	GCG

121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141
Val	His	Ala	Ser	Leu	Asp	Lys	Phe	Leu	Ala	Ser	Val	Ser	Thr	Val	Leu	Thr	Ser	Lys	Tyr	Arg
GTG	CAC	GCC	TCC	CTG	GAC	AAG	TTC	CTG	GCT	TCT	GTG	AGC	ACC	GTG	CTG	ACC	TCC	AAA	TAC	CGT

FIG. 16B

```
 1   2   3   4   5   6   7   8   9   10  11  12  13  14  15  16  17  18  19  20
Val His Leu Thr Pro Glu Glu Lys Ser Ala Val Thr Ala Leu Trp Gly Lys Val Asn Val
GTG CAC CTG ACT CCT GAG GAG AAG TCT GCC GTT ACT GCC CTG TGG GGC AAG GTG AAC GTG

 21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40
Asp Glu Val Gly Gly Glu Ala Leu Gly Arg Leu Leu Val Val Tyr Pro Trp Thr Gln Arg
GAT GAA GTT GGT GGT GAG GCC CTG GGC AGg CTG CTG GTG GTC TAC CTT TGG ACC CAG AGG

 41  42  43  44  45  46  47  48  49  50  51  52  53  54  55  56  57  58  59  60
Phe Phe Glu Ser Phe Gly Asp Leu Ser Thr Pro Asp Ala Val Met Gly Asn Pro Lys Val
TTC TTT GAG TCC TTT GGG GAT CTG TCC ACT CCT GAT GCT GTT ATG GGC AAC CCT AAG GTG

 61  62  63  64  65  66  67  68  69  70  71  72  73  74  75  76  77  78  79  80
Lys Ala His Gly Lys Lys Val Leu Gly Ala Phe Ser Asp Gly Leu Ala His Leu Asp Asn
AAG GCT CAT GGC AAG AAA GTG CTC GGT GCC TTT AGT GAT GGC CTG GCT CAC CTG GAC AAC

 81  82  83  84  85  86  87  88  89  90  91  92  93  94  95  96  97  98  99 100
Leu Lys Gly Thr Phe Ala Thr Leu Ser Glu Leu His Cys Asp Lys Leu His Val Asp Pro
CTC AAG GGC ACC TTT GCC ACA CTG AGT GAG CTG CAC TGT GAC AAG CTG CAC GTG GAT CCT

101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120
Glu Asn Phe Arg Leu Leu Gly Asn Val Leu Val Cys Val Leu Ala His His Phe Gly Lys
GAG AAC TTC AGG CTG CTG GGC AAC GTG CTG GTC TGT GTG CTG GCC CAT CAC TTT GGC AAA

121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140
Glu Phe Thr Pro Pro Val Gln Ala Ala Tyr Gln Lys Val Val Ala Gly Val Ala Asn Ala
GAA TTC ACC CCA CCA GTG CAG GCT GCC TAT CAG AAA GTG GTG GCT GGT GTG GCT AAT GCC

141 142 143 144 145 146
Leu Ala His Lys Tyr His
CTG GCC CAC AAG TAT CAC
```

FIG. 16C

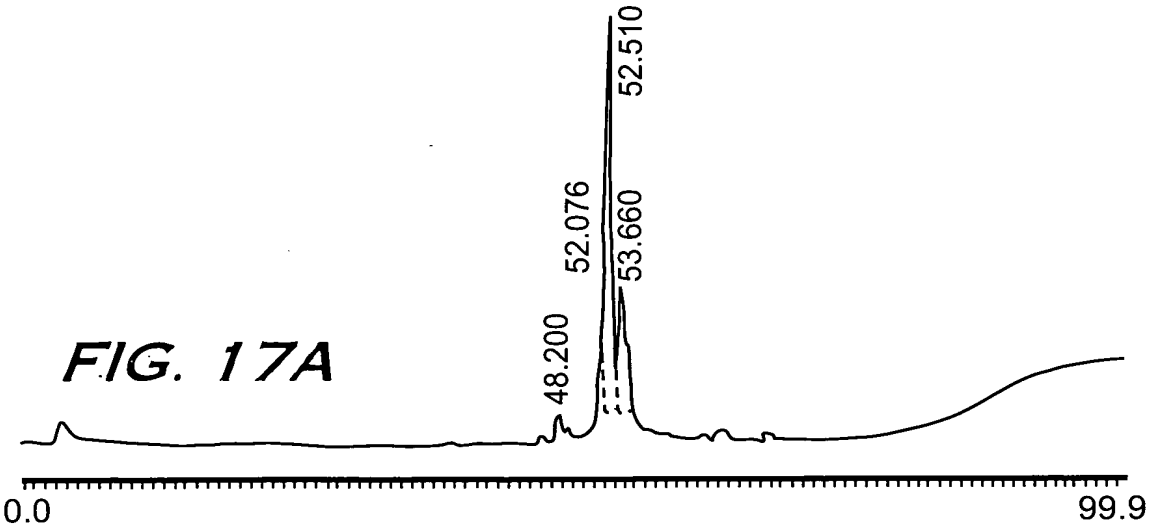
```
                    10         20         30         40         50
hHemA.pep      1 V-LSPADKIN VKAAWGKVGA HA-GEYGAEA LE-RMFLSFP TTKTYFPHF-    50
hHemB.pep      1 VHLTPEEKSA VTALWGKV-- -NVDEVGGEA LG-RLLVVYP WTQRFFESFG    50
mHemA.pep      1 V-LSGEDKSN IKAAWGKIGG HG-AEYGAEA LE-RMFASFP TTKTYFPHF-    50
mHemB.pep      1 VHLTDAEKAA VSCLWGKVNS D---EVGGEA L-GRLLVVYP WTQRYFDSFG    50
pHemA.pep      1 V-LSAADKAN VKAAWGKVGG QA-GAHGAEA LE-RMFLGFP TTKTYFPHF-    50
pHemB.pep      1 VHLSAEEKEA VLGLWGKVNV D---EVGGEA L-GRLLVVYP WTQRFFESFG    50

                    60         70         80         90        100
hHemA.pep     51 DLSH-----G SAQVKGHGKK VADALTN--- AVAHVDDMPN ALS--ALSDL   100
hHemB.pep     51 DLSTPDAVMG NPKVKAHGKK VLGA---FSD GLAHLDNLKG TFA--TLSEL   100
mHemA.pep     51 DVSH-----G SAQVKGHGKK VADALAS--- AAGHLDDLPG ALS--ALSDL   100
mHemB.pep     51 DLSSASAIMG NAKVKAHGKK V---ITAFND GLNHLDSLKG TFASL--SEL   100
pHemA.pep     51 NLSH-----G SDQVKAHGQK VADALTK--- AVGHLDDLPG ALS--ALSDL   100
pHemB.pep     51 DLSNADAVMG NPKVKAHGKK V---LQSFSD GLKHLDNLKG TFAKL--SEL   100

                   110        120        130        140        150
hHemA.pep    101 HAHKLRVDPV NFKLLSHCLL VTLAAHLPAE FTPAVHASLD -KFLASVSTV   150
hHemB.pep    101 HCDKLHVDPE NFRLLGNVLV CVLAHHFGKE FTPPVQAAYQ -KVVAGVANA   150
mHemA.pep    101 HAHKLRVDPV NFKLLSHCLL VTLASHHPAD FTPAVHASLD -KFLASVSTV   150
mHemB.pep    101 HCDKLHVDPE NFRLLGNMIV IVLGHHLGKD FTPAAQAAF- QKVVAGVATA   150
pHemA.pep    101 HAHKLRVDPV NFKLLSHCLL VTLAAHHPDD FNPSVHASLD -KFLANVSTV   150
pHemB.pep    101 HCDQLHVDPE NFRLLGNVIV VVLARRLGHD FNPDVQAAF- QKVVAGVANA   150

                   160        170        180        190        200
hHemA.pep    151 LTSKYR.... .......... .......... .......... ..........   200
hHemB.pep    151 LAHKYH.... .......... .......... .......... ..........   200
mHemA.pep    151 LTSKYR.... .......... .......... .......... ..........   200
mHemB.pep    151 LAHKYH.... .......... .......... .......... ..........   200
pHemA.pep    151 LTSKYR.... .......... .......... .......... ..........   200
pHemB.pep    151 LAHKYH.... .......... .......... .......... ..........   200
```

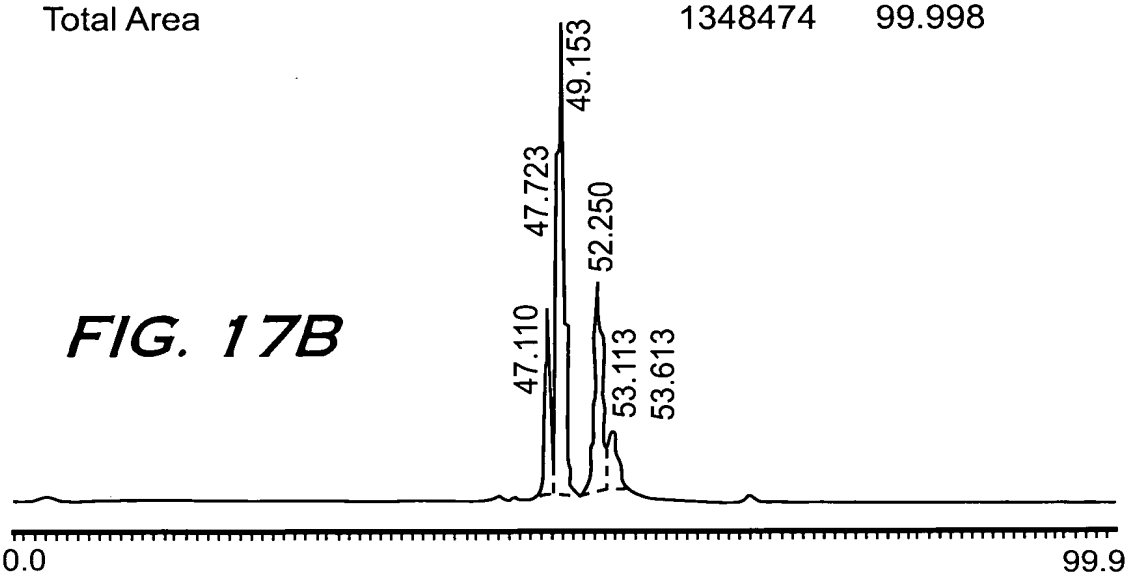
FIG. 17A



Analysis Channel A

Peak No.	Time	Type	Height(μY)	Area (μY-sec)	Area %
1	48.200	N	1677	20438	1.515
2	52.076	N1	7625	116393	8.631
3	52.510	N2	32010	881490	65.369
4	53.660	N3	10066	330153	24.483
Total Area				1348474	99.998

FIG. 17B



Analysis Channel A

Peak No.	Time	Type	Height(μY)	Area (μY-sec)	Area %
1	47.110	N1	1727	24840	0.204
2	47.723	N2	75067	1738939	14.321
3	49.153	N3	188795	6206410	51.114
4	52.250	N1	81476	3046748	25.092
5	52.115	N2	13195	202166	1.664
6	53.613	N3	19211	914954	7.535
	65.753	N	818	8066	0.066
Total Area				12142123	99.996

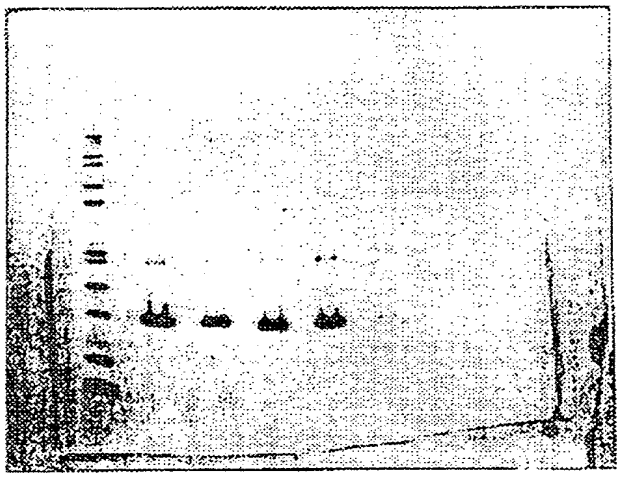


FIG. 18

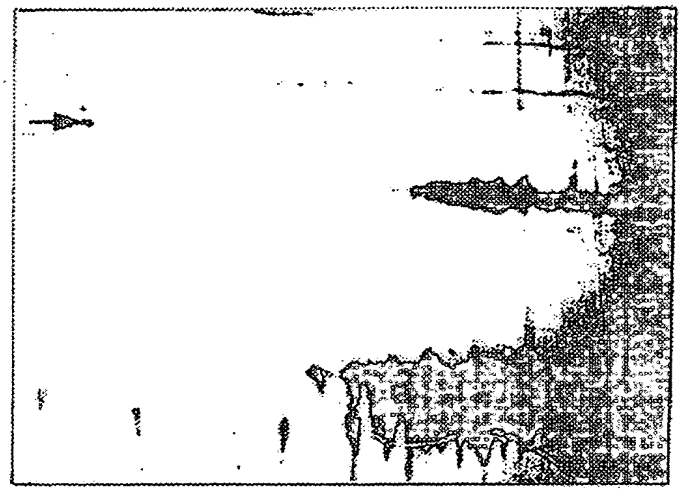


FIG. 19A

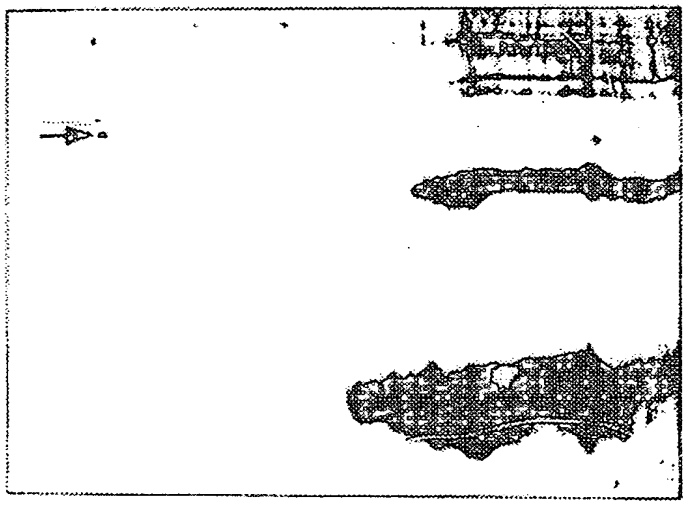


FIG. 19B

FIG. 20

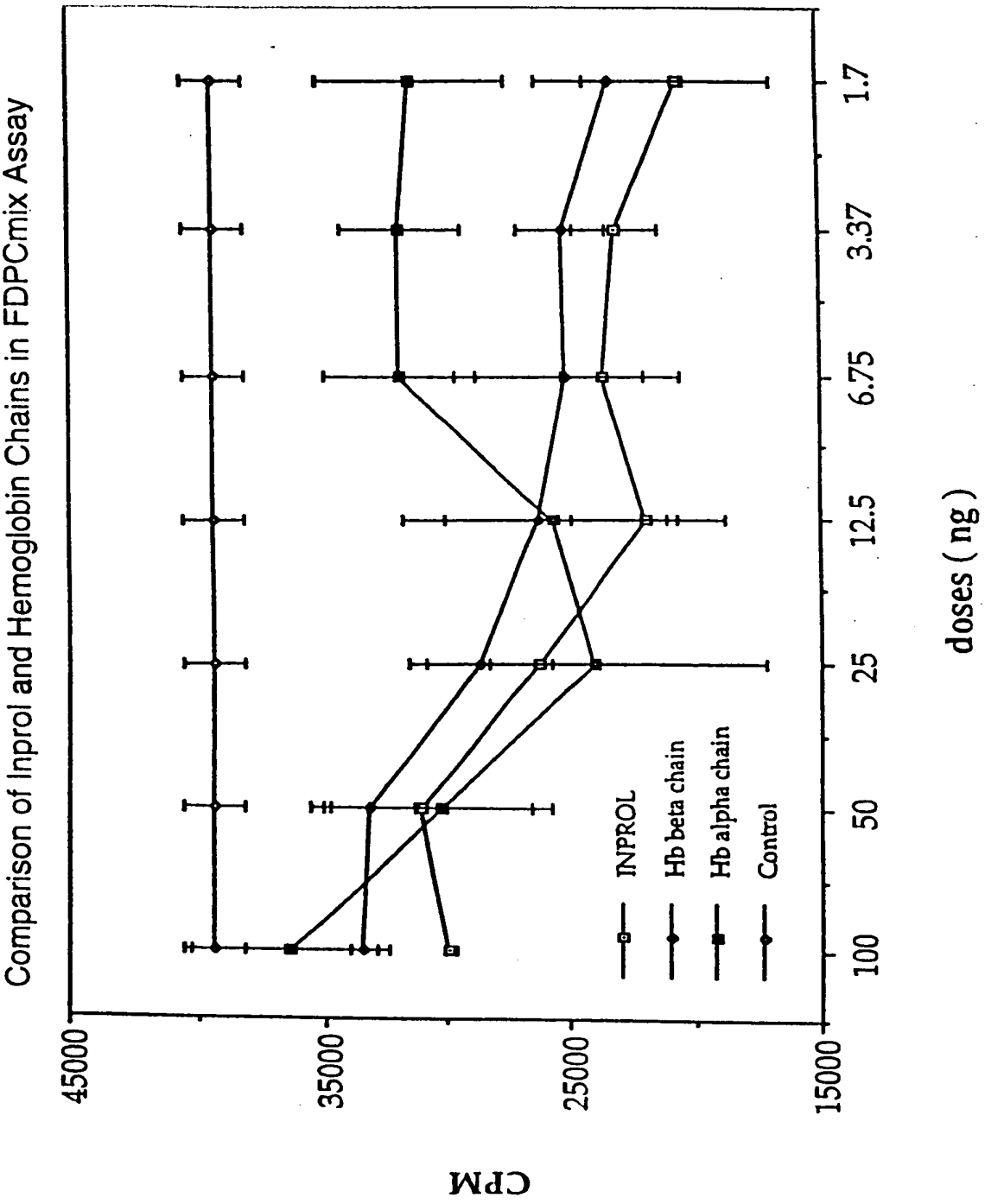
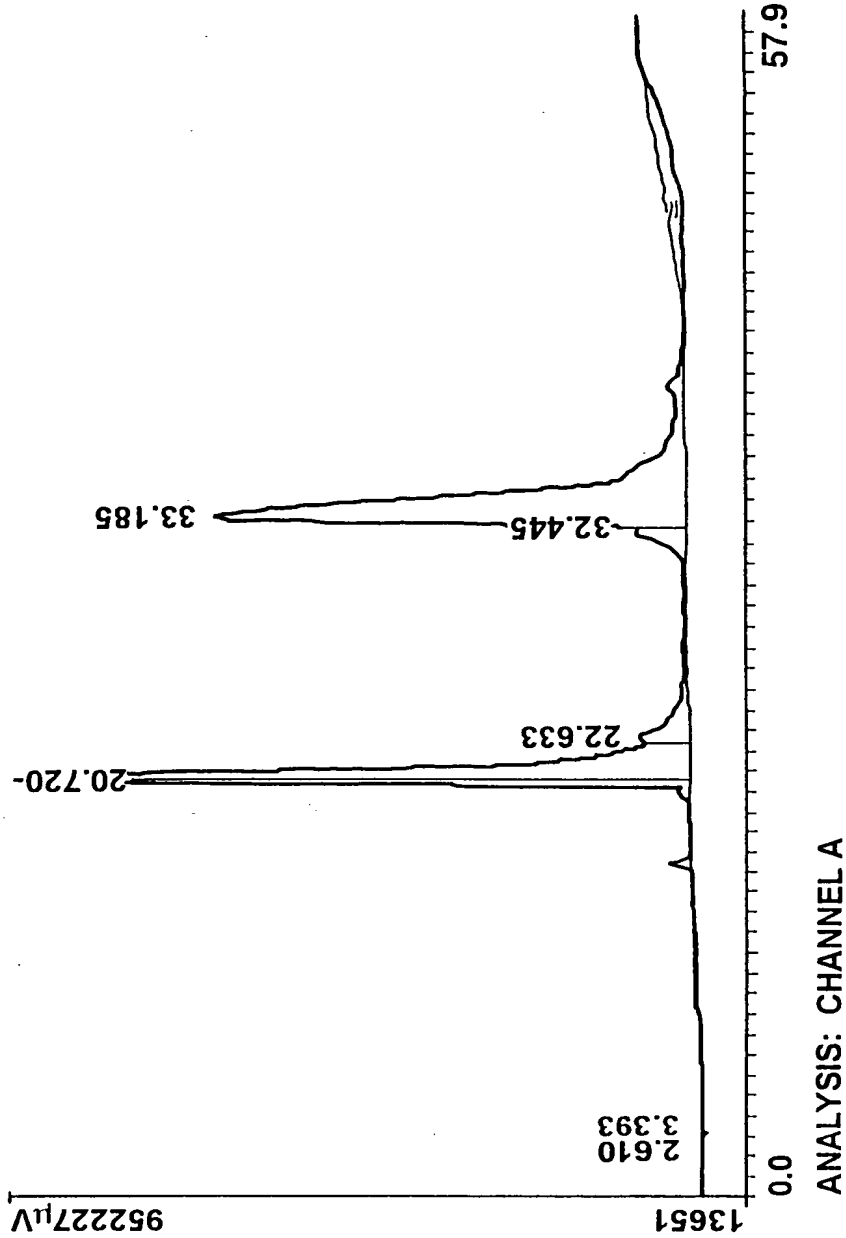


FIG. 21



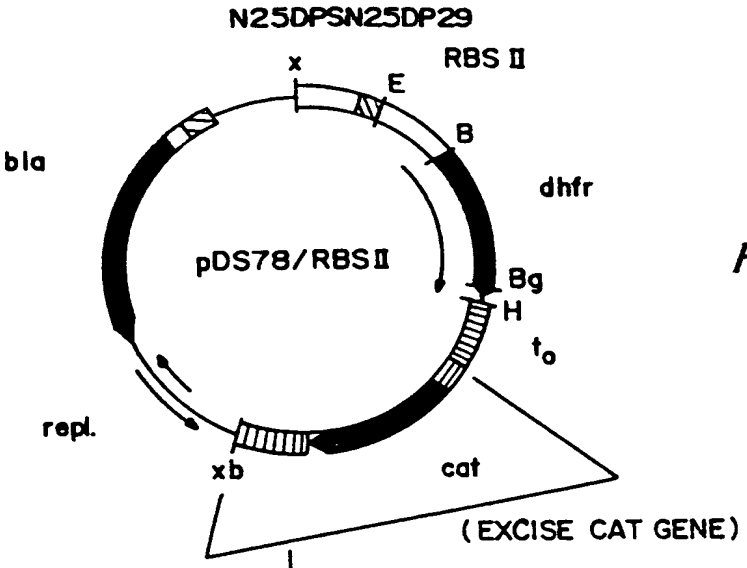


FIG. 22A

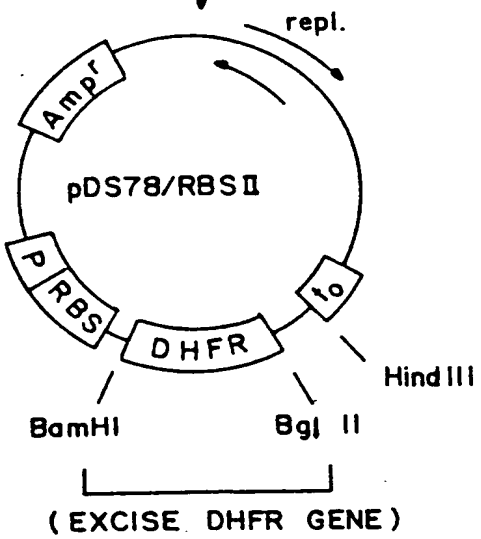


FIG. 22B

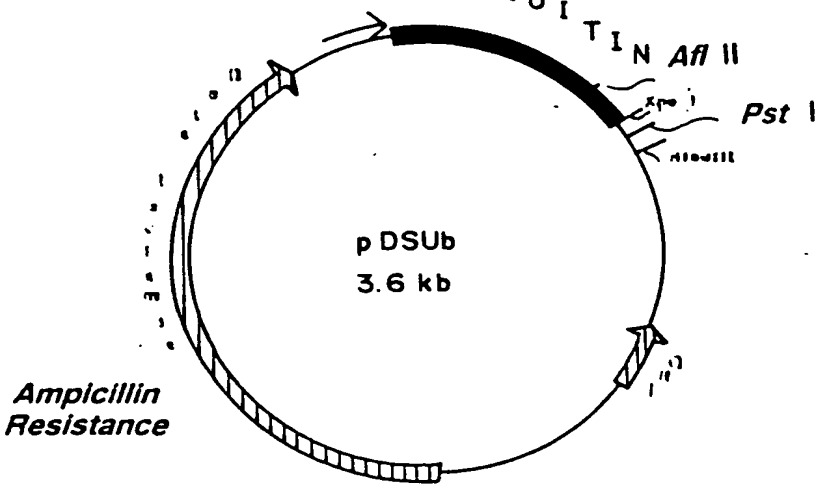


FIG. 22C

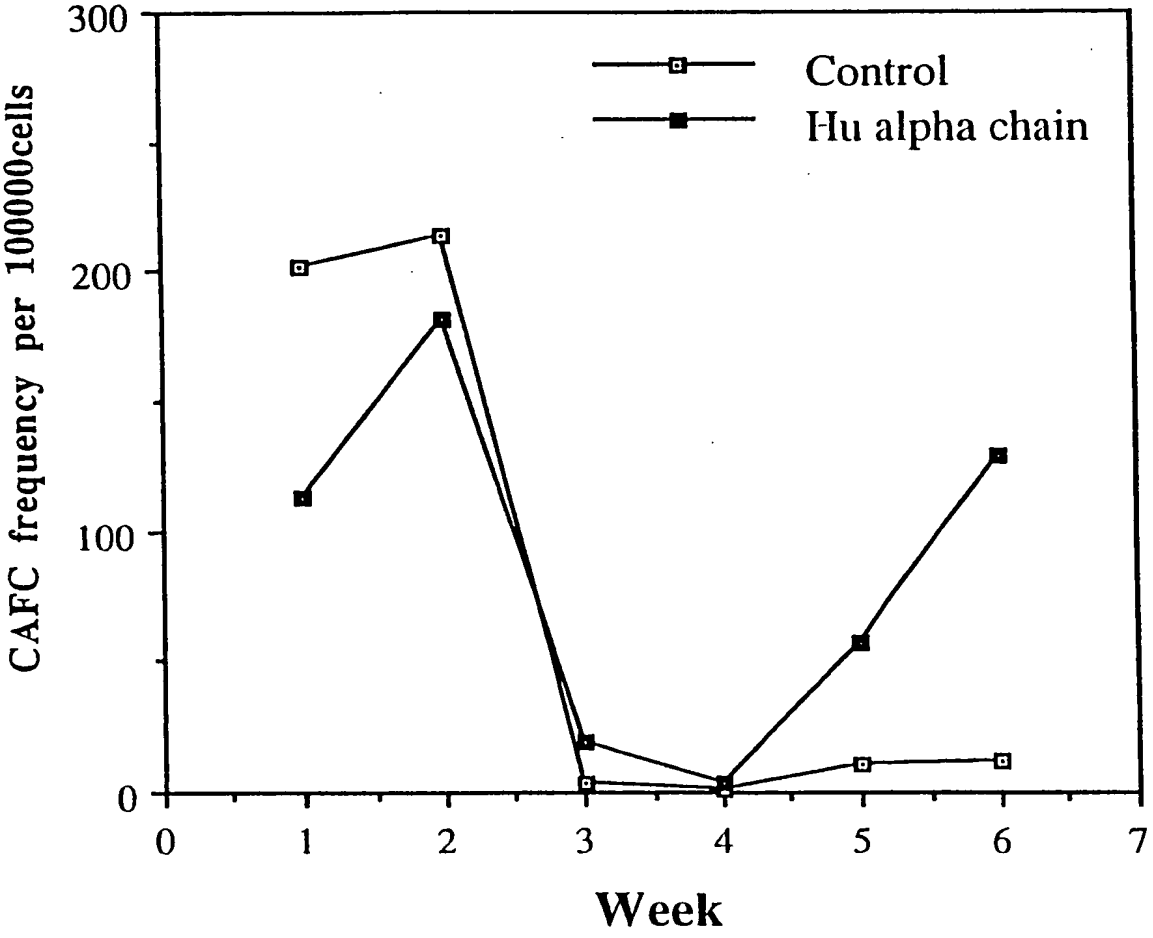


FIG. 23